# E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL

VOL. 30 NEW YORK, FEBRUARY 19, 1959 No. 8


## THIS WEEK IN THE MARKETS...

- **Copper markets firm; U.S. custom smelters at 30½c and not pressing for business.**
- **Cerro de Pasco struck–produces copper, lead, zinc and silver. U.S. lead weak.**
- **Zinc sales slow. Tin prices in the U.S. and Europe steady; buyers wait ITC news.**

**COPPER–domestic average 30.063c per lb delivered**
**export f.o.b. Atlantic seaboard 28.670c**
**export c.i.f. Continental ports 29.615c**

U.S. pricings were exceptionally high this week though slightly under last week. Pricings outside the U.S. were the highest since the second week of January.

The domestic average for the week ending February 11 was 30c per lb delivered rather than 29.6c as incorrectly printed here February 12.

Cerro de Pasco properties were struck yesterday–about 2,500 tpm of copper is produced there. Copper is tighter in the U.S. Some fabricators report inability to get copper in excess of the maximum amounts called for in the contracts with producers. Some may now be unable to get the maximum. Some fabricators that buy only irregularly from custom smelters have sought copper from them. Smelters have not been pushing for business even at the 30½c price to which they went February 16. In some cases smelters have asked for the *E&MJ* average. Most fabricators are trying to get the flat price indicating the belief the price may rise. Some have been trying to buy May and June copper. Smelters are not prepared to sell that far ahead at flat prices. Dealers have sold several months ahead but at prices above 30½c. The highest we have heard was 30⅞c.

Much of this press for metal has been hedge buying against expected strikes in the U.S. this summer when current labor-management contracts end. But some of it reflects the general increase in economic activity in the U.S.

Smelters have been getting little scrap from dealers–the latter anticipate higher prices. But few if any expect producers to raise in the U.S.

London prices have been firm. Premiums for shapes are almost zero suggesting consumers are not after spot copper. Some analysts infer from this that speculative activity, based on anticipated labor troubles in various parts of the world, has held the LME up. Red China buying some feel is significant in the European market.

Brass ingot prices rose in the U.S. by 1c to 2½c.

**TIN–102¾c a lb, N.Y.**

Demand here has slowed as the world awaits news of the Feb. 17 ITC meeting. Observers are looking for no change in export quotas. Liberalized quotas coupled with a steel strike could easily undo recent market gains. U.S. and London prices were steady during the week; Singapore firmed.

**ZINC–11½c per lb East St. Louis**

Zinc sales this week were the lowest reported since April. Zinc sales so far this month have been very low. Though zinc is much less firm than formerly, sellers indicate it is not as easy as lead. Some suggest the effects of heavy buying last fall are being felt. Struck Cerro smelters produce about 2,700 tpm.

**LEAD–11½c per lb New York**

Lead sales this week were 2,471 tons. Sales have been very low this month and the market is rather weak. St. Joseph Lead Co. cut operations to 4 days a week in SE Missouri. Cerro de Pasco was struck yesterday; the labor contract period ended and negotiations broke down. It produces about 6,000 tpm.

**ALUMINUM–primary pig, domestic 24.7c per lb;**
**export 22.5c**

U.S. primary output in January rose to 156,708 tons from 152,301 in December. Some factors suggest that shutdown of potlines by Alcoa and Kaiser may reduce February output.

Aluminum's chief financial officer, Dana T. Bartholomew, in a logical and forthright talk in Chicago, pointed out the difficulty facing primary aluminum this year (p 3). He indicated the industry is faced with great over-capacity. This situation in 1958 was not disastrous owing to the high margin in pig and ingot prices and the 335,000 tons "put" to the U.S. Government. There was some discounting in pig but prices for semis were "cut" much more.

There has been almost no hedge buying in anticipation of a strike in aluminum this year. Contracts terminate in most cases July 31 and many analysts expect a strike. One spokesman for a large primary producer said the great over-capacity of the industry makes hedge buying at this early date unnecessary. Alcan's contracts terminate in 1960 and doubtless it could ship in much metal in case of a U.S. strike in primary aluminum.

British Aluminium's chairman, Lord Portal, and its president, Geoffrey Cunliffe, resigned from the board following Reynolds acquisition of most of the stock. Richard Reynolds and Sir Stedeford, chairman of Tube Investments, were elected to replace them. Some observers say that now that Reynolds has British Aluminium which is a primary producer in Canada it will no longer export U.S. primary to its recently acquired Canadian fabricating subsidiary in Canada over the Canadian import duty.

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# *producers of:*

*Antimonial Lead*
*Antimony*
*Antimony Oxide*
*Arsenic*
*Asbestos*
*Bismuth*
*Cadmium*
*Cadmium Oxide*
*Cadmium Sulfide*
*Copper*
*Fluorspar*
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*Lead*
*Lead, Test*
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*Nickel Salts*
*Selenium*
*Silver*
*Sulfur Dioxide, Liquid*
*Sulfuric Acid*
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*Thallium*
*Thallium Sulfate*
*Zinc*
*Zinc Dust*
*Zinc Sulfate*

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# E&MJ METAL AND MINERAL MARKETS

WEEKLY MARKET INFORMATION ISSUED BY THE PUBLISHERS OF ENGINEERING AND MINING JOURNAL



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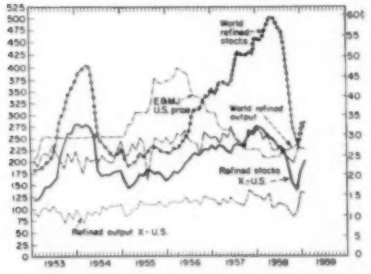
## Copper Production and Stocks




Data, except price, are from the Copper Institute and are in thousands of short tons. They include January 1959. World refined output and stocks do not include the U.S.S.R., Japan, the Scandinavian countries, Australia, Yugoslavia, and the Mesina Mine in Transvaal. The two series "X-U.S." are the above world producer statistics less the U.S. No fabricator stocks are included.

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## Refined Copper Stocks Up 22,000 Tons Outside the U.S.

World stocks of refined copper rose about 22,000 short tons in January, according to Copper Institute figures. Stocks in the U.S. were unchanged. Refined output and shipments, outside the U.S., were almost equal – the increase in stocks reflected the heavy shipments from the U.S., mostly of copper brought into the U.S. for refining.

Deliveries to fabricators in the U.S. were down from the preceding three months but well above the 1958 monthly average and also above the 1957 monthly average. U.S. stockpile was shipped 620 tons. World crude copper production was above deliveries of refined copper and at an all time high. World refined output was down about 12,000 tons from December but higher than any other month of 1958.

Copper Institute figures for December 1958 and January 1959 follow:

**United States**

| Production: | Dec. | Jan. |
|---|---|---|
| Crude primary ..... | (a) 97,641 | 98,356 |
| Crude secondary .... | (a) 7,911 | 11,167 |
| Total ..... | (a) 105,552 | 109,523 |
| Refined copper ..... | 146,978 | 137,361 |
| Deliveries refined..... | 116,310 | 114,425 |
| Stock, end, ref'd..... | 80,722 | 80,780 |

**Outside United States**

| Production: | | |
|---|---|---|
| Crude primary ..... | (a) 155,871 | 162,022 |
| Crude secondary .... | 972 | 1,093 |
| Total ..... | (a) 156,843 | 163,115 |
| Refined copper ..... | 135,213 | 133,497 |
| Deliveries refined ..... | 144,531 | 134,007 |
| Stock, end, ref'd ..... | 178,152 | 200,100 |

(a) Revised

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## Government Reverses Decision On Copper Exports to Russia

The Department of Commerce has returned all copper and copper-base alloys to its control list, thus requiring all shipments to Russia and her satellites to be licensed in advance.

Commerce removed copper from the control list in November 1958. Since that time the department has been swamped with applications to ship copper to Iron Curtain countries – almost all of which were automatically approved. About 7,760 tons, in 17 shipments, were approved for Russia. Copper wire and scrap were included.

Beginning Feb. 20, for all practical purposes, new copper orders for export to Russia will end. Advance licenses are almost never granted on control-list items. Under the new ruling, shipments to all non Soviet Sphere countries, except Canada, will require licenses. The latter are generally issued without delay.

The regulation includes 33 copper items.

## Aluminum Demand to Remain Well Under Capacity

Primary aluminum capacity will remain well ahead of consumption for some time into the future, Dana T. Bartholomew told the Chicago Society of Security Analysts last week. Even in 1961 chances are demand will not take up all of capacity. Mr. Bartholomew, vice president and chief financial officer of Aluminium Ltd., said U.S. primary aluminum production in 1958, excluding metal for the stockpile, was a little over 1,200,000 short tons. He indicated in the next few years capacity is to go over 2,600,000 tons.

He indicated earnings for his company in 1958 were poor. Outlook for the current quarter are the worst in seven years he said. But in the last few weeks orders were received from countries that had not ordered for more than a year; this suggested the low point had been reached. He said the Iron Curtain countries appeared to be importing more aluminum than they were exporting. Red China has been importing much. About 75% has been from Russia and the rest from European countries.

Consumption in the U.S. increased about 51% 1950-1958 while in eight other major non-Iron Curtain countries the increase has been 119%.

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## U.S. Copper Mine Output Dropped 10% in 1958

Mine production of copper in the United States in 1958 dropped 10% from 1957, according to the U.S. Bureau of Mines.

Voluntary curtailment by major producers was mainly responsible for the decrease.However, stimulated by a better outlook for demand and increases in the price of copper, operations were reactivated rapidly at most of the large western mines and production in the last quarter exceeded a monthly rate of 93,500 tons with December output reaching almost 95,000 tons.

Among the principal copper-producing States, Arizona decreased 5%, Nevada and New Mexico each 16%, and Utah 22%, whereas Michigan rose 2%, and Montana was unchanged. In addition to curtailed output New Mexico's production was adversely affected by a strike of office workers from Oct. 1 to Oct. 22 at the Chino Division of Kennecott Copper Corp. in Grant County.

Arizona: Output of copper in Arizona in 1958 again was substantially above all other States, and exceeded Utah, in second place, by 304,000 tons. Production, however, was 5% less than the record established in 1957. The Morenci, San Manuel, Copper Queen, New Cornelia, Ray, and Inspiration operations were the largest producers in the State. All principal producers, except San Manuel, Inspiration, Silver Bell, Pima, and Bagdad, reported decreased output in 1958 compared with 1957.

Stripping was continued at the Esperanza open-pit mine, in Pima County, of

*(Continued on page 4)*

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## Copper

*(Continued from page 3)*

the Duval Sulphur & Potash Co., and work continued on the construction of the 10,000-tpd concentrator.

California: Production totaled 750 tons in 1958, compared with 945 tons in 1957, and came mainly from ores mined principally for other metals.

Colorado: Output dropped 20% from 1957, and came from various producers.

Idaho: The 21% increase in production in 1958 was caused by increased output of cobalt-copper ore at the Blackbird mine in Lemhi County, and copper-bearing silver ores at the Galena and Sunshine mines in Shoshone County. Most of the remainder of the production came from the Coeur d'Alene region.

Michigan: Mine production totaled 59,500 tons, a 2% increase over 1957, and the State rose to fifth place among leading producers. Output came from the White Pine mine in Ontonagan County, Calumet & Hecla operations in Houghton and Keewenaw Counties, and Copper Range Co. and Quincy Mining Co. in Houghton County. Calumet & Hecla discontinued production from the Caledonia mine in June, and the Iroquois and Osceola Number 13 in October. The Quincy Mining Co. reclamation plant, which was closed at the end of 1957, resumed operations in November.

Missouri: Production of copper from lead-copper ores of Southeastern Missouri was 1,250 tons in 1958, compared with 1,604 tons in 1957.

Montana: Although production of copper in 1958 was virtually unchanged from 1957 the State continued to rank third among the leading copper-producing States. Almost all the output came from the Butte Hill operations of The Anaconda Company in Silver Bow County.

Nevada: Nevada ranked fourth among principal copper-producing States. Production was 65,300 tons, a 16% decrease from 1957, and the lowest since 1953. The Kennecott Copper Corp. Nevada Mines Division (including properties of Consolidated Coppermines purchased in early 1958), Robinson district, White Pine County, and The Anaconda Company, at Yerington, Lyon County, accounted for most of the State's output.

New Mexico: New Mexico fell to sixth place in 1958 (it ranked fifth for 1955-57). Production was 56,800 tons compared with 67,472 tons in 1957, a decrease of 16%. The Chino open-pit mine of Kennecott Copper Corp. was by far the largest producer in the State.

North Carolina: Virtually all the output came from the Ore Knob mine in Ashe County. Production for the State was 26% higher than in 1957.

Pennsylvania: Copper was recovered from the magnetite-pyrite-chalcopyrite ores of the Cornwall mine in Lebanon County.

Tennessee: Production fell 10% in 1958 and came entirely from properties of the Tennessee Copper Co. in Polk County.

*(Continued on page 5)*


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## Miscellaneous Metals

**Wholesale lots, (a) f.o.b. ship. pt.; (b) delivered; (c) f.o.b. N.Y.; (d) Dep. on size** of lot; (e) dep. on grade; (n) nom.

**ALUMINUM:** lb (b) **eff. 8-4-58, ingot:**
99.50%.....26.8c 99.80%.....27.8c
99.75%.....27.3c 99.85%.....28.8c

**ANTIMONY:** dom, lb.. Feb. 12-Feb. 18
Holiday Feb. 12
**boxed N.Y. (c) .....32.590c**
**bulk (a) .....29c**
**boxed (a) .....29½c**
imported 10-ton lots, 99½%, duty pd..24½c
99% .....24c

**BISMUTH: lb, ton lots .....$2.25**

**CADMIUM:** lb (b) Feb. 12-Feb. 18..$1.45
Holiday Feb. 12

**CALCIUM: lb, ton lots, slabs, etc. ....$2.05**

**CHROMIUM: (b) lb of material,**
**exo. 98.5%, .05%C, .....(d)$1.15-1.19**
Elec. 99.8% .....(d)$1.15-1.19
Vacuum melting .....4c more

**COBALT:** lb, (c), eff. 2-1-59
500 lb lots .....$1.75
100 lb .....$1.77
less than 100 lb .....$1.82
fines .....$1.75

**COLUMBIUM:** lb. 99½%, (d)
roundels .....$55-70
electrode segments .....$60-75
rough ingots .....$65-80

**GALLIUM: gr, 1000-gr lots .....$3.00**
**less than 1000-gr lots .....$3.25**

**GERMANIUM: gr**
1000-gr lots, 1st red .....40c(b)&43½c(a)
intrinsic .....44½c(b)&48½c(a)
10,000-gr lots, 1st red .....37c(a)&38c(b)
intrinsic .....39c(a)&40.2c(b)

**INDIUM: tr oz, 99.9%, small lots ....$2.25**
over 5,000 oz .....$1.25-2.25

**IRIDIUM:** tr oz .....$75-80

**LITHIUM: lb 99.5% .....$9-11**

**MAGNESIUM:** lb (a) 10,000 lb lots,
pig ingot 99.8% .....35¼c-36.65c
notched ingot .....36c-37.45c

**MANGANESE:** lb (b) 95½%, carloads,
bulk .....45c
packed .....45¾c
elec (a) frt. allowed E. of Miss., 99.9%..34c
ton lots eff. 4-1-57 .....36c
prem for hydrogen removed .....¾c lb

**MOLYBDENUM:** (a) eff. 8-56
powder, carbon red .....$3.35

**NICKEL:** lb (a) duty included .....74c
eff. 12-6-56
dealers .....74c
powder (b) U.S. .....74c
sinter (nickel content) point of entry,
eff. 7-14-58 .....69.6c

**OSMIUM:** oz (n) .....$70-90

**PALLADIUM:** tr oz eff. 2-17-59.....$16-18

**PLATINUM:** tr oz .....$57-60
average .....$57

**QUICKSILVER:** flask, N.Y. .....$218-23

**RADIUM:** mg, Ra content .....$16-21½

**RHODIUM:** tr oz .....$118-125

**RUTHENIUM:** tr oz .....$55-60

**SELENIUM:** lb, 2-19-58, comm. grade $7
high purity .....$9.50

**SILICON:** lb (a) eff. 10-1-58
98% max .51-1.0% Fe, crushed .....23.35c
lump .....21.50c
Hyper-pure: (4-1-57) #1.....$360
#2.....$250
#3.....$160
solar cell (4-1-57) .....$100

**SODIUM:** lb, carloads .....16½c
**less than carloads .....17c**

**TANTALUM:** per lb. (a) (e) powder $40-58.60
sheet (e) .....$50.35-59.18
rod (e) .....$73.04-80.23

**TELLURIUM: lb .....$1.65-1.75**

**THALLIUM: lb .....$7.50**

**TITANIUM: lb (a) A-1 99.3%**
**max. .3% Fe .....$1.62-$1.82**
**max. .5%, Fe. eff. 10-1-58 .....$1.70**

**TUNGSTEN: lb 98.8%**
1000-lb lots .....$2.75-$2.90
Hydrogen red 99.99% .....$3.33-3.80
**dep. on Fisher No. eff. 3-26-58**

**VANADIUM: lb, 90% V 100 lb lots ..$3.65**

**ZIRCONIUM: lb (a) sponge, powder**
**platelets: low hafnium .....$7-14**
comm.....$5-10

## Metallic Ores

Tons of 2000 lb or units of 20 lb, unless otherwise stated. Short ton unit=stu; long ton unit=ltu. (a) c.i.f. U. S. ports, (b) f.o.b. ship pt., (c) f.o.b. mine or mill (g) depending on grade, (i) import duty extra, (n) nominal, (t) term contracts.

**ANTIMONY ORE:** stu of Sb:
50-55% ..... $2.25-$2.40
60% ..... $2.50-$2.60
65% lump ..... $3.10-$3.20

**BERYLLIUM ORE:** stu BeO, 10-12%
Dom. (c) – dep. on quan. ..... $46-$48
Imported (a) ..... (n) $28-$32

**CHROME ORE:** lt, dry basis, subject to penalties if guarantees are not met, f.o.b. cars, Atlantic ports
Rhodesian: (t)
48% $Cr_2O_3$, 3 to 1 ratio ..... (n) $40-$42
48% $Cr_2O_3$, 2.8 to 1 ratio ..... (n) $37-$39
48% $Cr_2O_3$, no ratio ..... (n) $28-$30
South African (Transvaal):
48% $Cr_2O_3$, no ratio ..... $30-$32
44% $Cr_2O_3$, no ratio ..... $19-$20
Turkish (basis 48% 3 to 1):
48% $Cr_2O_3$, 3 to 1 ratio, lump and concentrates ..... (n) $44.25-$46
46% $Cr_2O_3$, 3 to 1 ratio, lump and concentrates ..... (n) $42-$43.50
Pakistan (Baluchistan):
48% $Cr_2O_3$, 3 to 1 ratio ..... (n)

**COBALT ORE:** lb Co, free market
10% ..... (n) 60c
11% ..... (n) 70c
12% ..... (n) 80c

**COLUMBITE ORE:** lb pentoxide, 65% $Cb_2O_5$ and $Ta_2O_5$
Ratio 10:1 ..... $1.10-$1.15
Ratio 8½:1 ..... (n) $ .95-$1.00

**IRON ORE:** lt, lower lake ports, Lake Superior ore 1958:
Bessemer
Mesabi 51½% Fe ..... $11.60
Old Range ..... $11.85
Non-Bessemer
Mesabi 51½% Fe ..... $11.45
Old Range ..... $11.70
Eastern ores, ltu, delivered, foundry and basic, 56-62% ..... 17c-18c
Swedish (t) (a) 60-68% stu (g) ..... (n)
Brazilian (b) 68½% gross ton, premium for low P, 1-1-59 ..... $12
Smaller sellers ..... $10.50-$11.50

**MANGANESE ORE:** Indian, (a) (i), ltu, Mn. 46-48% (see 11-27-58, P. 12) (n) ..... $.915-$.965
max. 2% Fe, ..... (n)
dioxide, 84% $MnO_2$ lt bulk crude (a) ..... (n)

**MOLYBDENUM ORE:** lb cont. Mo.: 95% $MoS_2$ (b): (eff. 1.1.58)
Climax, cost of container extra ..... $1.25
Molybdic trioxide $MoO_3$, bags (b) .... $1.46
cans ..... $1.47

**TITANIUM ORE:** Ilmenite, gross tons $TiO_2$, 59½% f.o.b. cars, Atlantic ports ..... $23-$26
54% f.o.b. cars ..... $21-$21.50
Rutile, 94% st, for del. within 12 mos. ..... $95-$100

**TUNGSTEN ORE:** stu $WO_3$ 65% basis foreign ore, nearby arrival
Wolfram ..... $10.75-$11.25
Scheelite ..... $10.75-$11.25
Low moly scheelite, higher
U.S. scheelite, stu. (c) ..... $19-(n) $22
London, ltu, $WO_3$ good ore
Wolfram ..... 84s-89s

**VANADIUM ORE:** lb $V_2O_5$ cont., (c):
Domestic ..... 31c

**ZIRCON ORE:** (sand) lt, (a)
Atlantic:
65% $ZrO_2$ ..... $46-$48
Domestic 66%, st, (b):
Jacksonville ..... $41
Stark, Fla. ..... $41


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### OEEC Lead Output Up 8%; Zinc Production Rose 6%

Paris (McGraw-Hill World News): Refined zinc production by countries belonging to the Organization for Economic Cooperation (OEEC) was 71,588 metric tons in December, compared to 67,566 tons the previous month. Pig lead output was 59,569 tons, against 55,812 tons in November.

Zinc output for the month was 15% improved when compared with December 1957. Lead output similarly compared showed a 3% drop.

A breakdown shows that 27,751 tons of December 1958 production were High Grade and Special High Grade zinc, with at least 99.95% zinc content. The remaining 43,837 tons were other qualities – G.O.B. and debased.

Estimated OEEC production of zinc ores and concentrates in December was 30,249 metric tons of recoverable metal content, against 30,951 in November.

OEEC production of lead ores and concentrates in December 1958 amounted to 21,169 tons of recoverable metal content, against 21,088 tons in November.

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### Copper

*(Continued from page 4)*

Utah: Utah remained the second most important copper-producing State; output, however, was 22% below 1957 and the lowest since 1946. Most of the output was derived from copper ore mined at the Utah Copper open-pit mine of the Kennecott Copper Corp., at Bingham, which is regularly the largest copper-producer in the United States.

Vermont: Production of copper dropped to 381 tons in 1958, the lowest since 1943. The Elizabeth mine in Orange County, which produced continuously since 1943, was closed in February 1958.

Washington: Output of copper was insignificant in 1958. The closing of the Holden mine, Chelan County, in 1957, was responsible for the sharp decrease.


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High Grade
Continuous Galvanizing Line Grades
★ FIRE RETORT
High Grade
Intermediate
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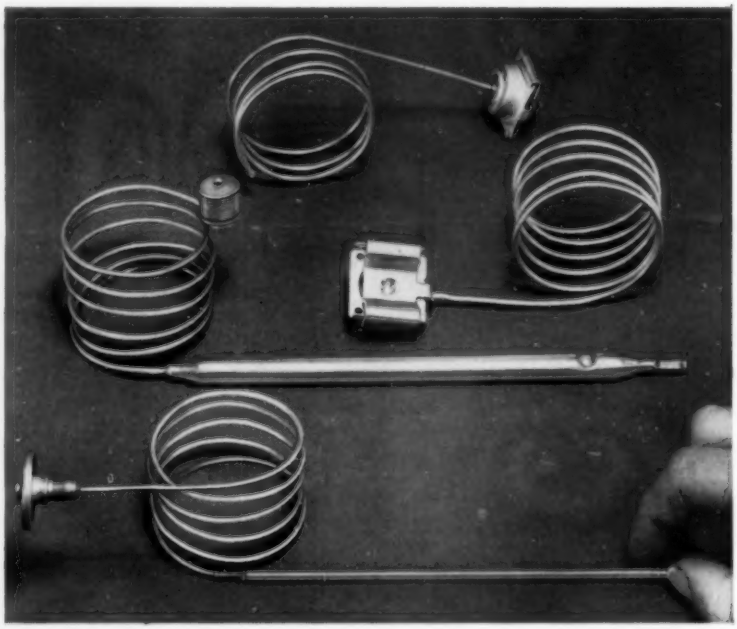
Brass Special
Select
Prime Western

American Zinc sales company
Distributors for AMERICAN ZINC, LEAD & SMELTING COMPANY
Columbus, Ohio ☆ Chicago ☆ St. Louis ☆ New York ☆ Detroit ☆ Pittsburgh

# 10 TO 15 NEW JOBS a week, each a different application, require a continuous program of evaluating the properties of metals and fabricating costs at Robertshaw-Bridgeport.



In making bellows (left) and temperature sensors (above) to meet ever-changing needs of control, appliance, and industrial equipment manufacturers, Bridgeport Thermostat Div., Robertshaw-Fulton Controls Co., Milford, Conn., averages 10 to 15 new problems a week. Specifications vary widely in dimensions and physical characteristics. Dependable performance over long periods of uninterrupted service is vital—yet costs must be rigidly controlled.

So for quality with maximum economy in fabrication, materials must be matched precisely to the needs of each job. And in this, Robertshaw-Bridgeport looks to its suppliers for creative technical services. For many years, The American Brass Company specialists have been helping to select the correct alloys in phosphor bronze or brass and to meet fabrication problems in the making of bellows—to apply economically precision-made capillary tubing and other small-diameter copper tube in sensor assemblies. Through such services, The American Brass Company is constantly helping metal fabricators across the nation control quality while keeping costs down.

ARE you caught between cost reduction and quality control? Find out if you are buying metal properties you don't need. An Anaconda specialist may be able to suggest a lower cost alloy that fits the requirements of your job more closely. Or he may find that an adjustment of temper or a change in your fabrication methods can cut your costs. The services of Anaconda specialists are available through your American Brass representative. Call him in today, or write: The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont. 5863B

**ANACONDA®**

**COPPER BRASS BRONZE NICKEL SILVER MILL PRODUCTS**

*Made by The American Brass Company*

## WATCH THESE TRENDS

**FINE METAL POWDERS,** one-millionth of an inch in diameter, are produced by a newly-discovered process announced by National Research Corp. Iron and nickel powders in this size range offer many new magnetic and electromagnetic applications. Copper, silver, gold, cobalt, manganese, lead, zinc and the alkaline earths are other likely candidates for ultra-fine production. It is expected that the fine powder will find application in catalytic processes where high surface exposure per unit of weight is required. One gram of ultra-fine powder aluminum has a surface area of 750,000 sq cm. National Research offers experimental quantities of aluminum powder for $30 an ounce.

**A NEW FOAMED METAL,** called F-alloy, that is nine times lighter than solid metal has been developed by General Electric Co. Thus far nickel, copper and cast iron have been successfully foamed. Present applications are in jet engines. Since foamed copper has the same conductivity per unit of weight as solid copper, it may prove useful in applications where cooling of the conductor is now a problem. Foamed metal can be molded into practically any shape during the baking process, and it can be machined with conventional tools.

**AN EXPERIMENTAL STEEL-LIKE MATERIAL** may offer engineers a replacement for plain steel forgings, according to a report from the American Foundryman's Society. Developed by General Motors Corp., the new product, called CentraSteel, has an elastic modulus very nearly that of steel, plus equivalent strength and better machinability. Absence of massive carbon makes the as-cast condition of the new material possible. It is produced by the inoculation of a low-carbon, high-silicon base composition with boron and tellurium.

**THE NATION'S FIRST ALUMINUM TRANSFORMER** is featured this week by Alcoa at the meeting of the American Institute of Electrical Engineers. The new transformer contains six tons of aluminum, and is rated at 3750 kva with voltage ratios of 2400/480 and 4160/480. The unit was made by Moloney Electric Co., St. Louis, Mo.

**INITIAL SHIPMENTS OF ENRICHED URANIUM DIOXIDE** have been made from Mallinckrodt Nuclear Corp. to Babcock & Wilcox Co. for installation in the world's first nuclear merchant ship. Total shipments will be 20,000 lb of uranium dioxide enriched to contain slightly more than 4% U-235, the fissionable isotope.

**A PROTOTYPE ALUMINUM CONTAINER** for British Railways is designed to collapse for returned shipment when empty. The containers can be collapsed or erected without use of a crane or special tools. Construction of the containers is designed for transport by rail, road or sea.

**THICKNESS OF NICKEL FOUNDATION PLATING** on chromium-plated parts has been increased by 60% to improve corrosion resistance of bumpers, headlights, tail lights, door handles and grill components on 1959 Buick models.

**THERMOELECTRIC DEVICES** for the conversion of heat directly into electricity were initially only 1% efficient. Russians claim efficiencies in excess of 10%. Now Westinghouse researchers are aiming to achieve efficiencies in the 20 to 30% range. Research is concentrated on the "transition" metals in the center of the periodic table which include manganese, iron, copper and nickel. If successful, new developments in this field could revolutionize the type of equipment used in air conditioning, refrigeration and power generation. Small applications such as radios appear to be most promising in the near future.

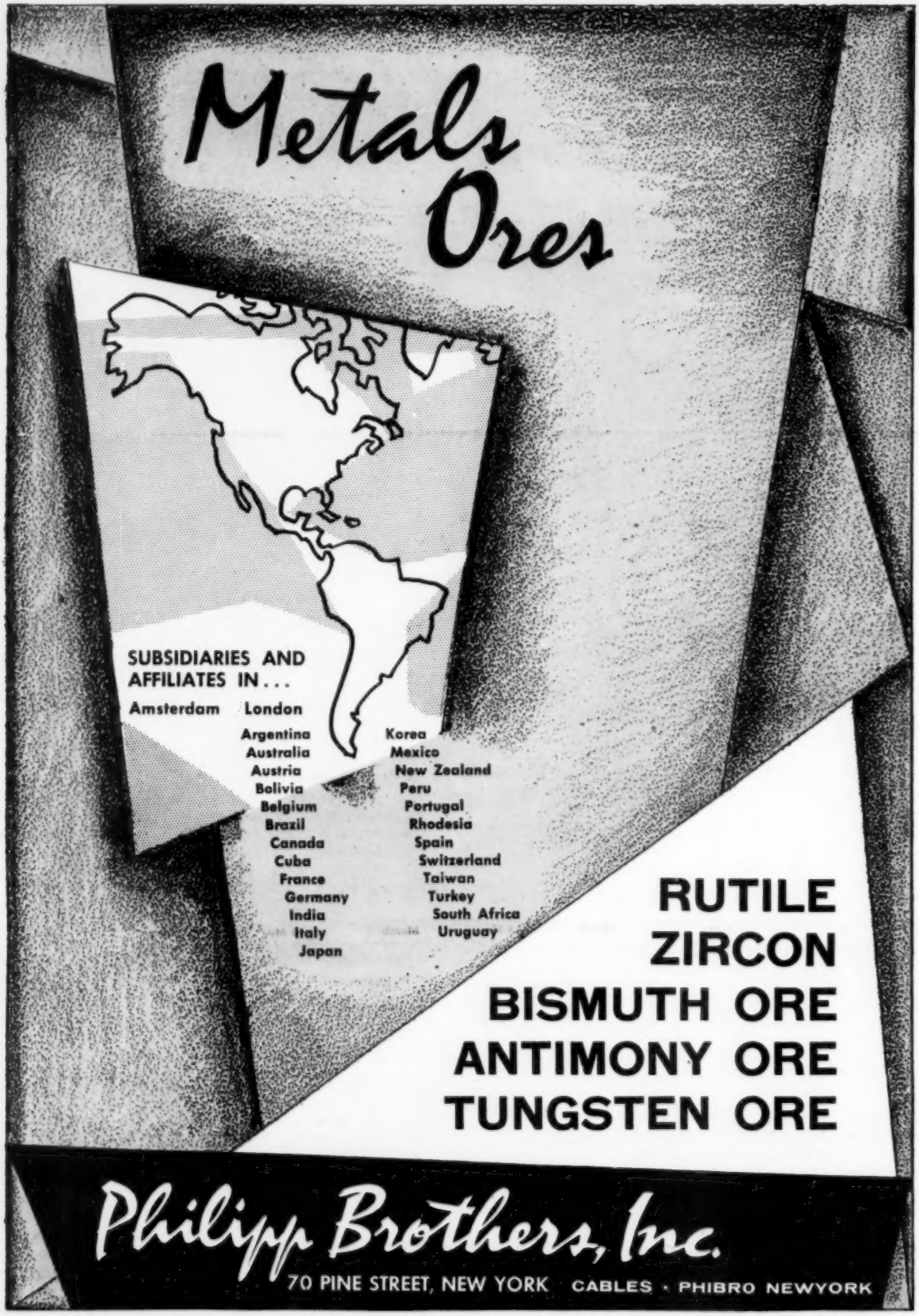
**MATERIAL FOR THERMOELECTRIC COOLING** which will be studied by Batelle Memorial Research Institute includes compounds from the following metal systems: Cu, Ag, Au/S, Se, Te; Zn, Cd, Hg/As, Sb, Bi; alkaline earth metals, Ge, Sn, As, Sb, Bi; and alkali metals, Ge, Sn, Pb, As, Sb, Bi. In addition, alloys of these compounds will be studied. Eighteen major American corporations are supporting this intensive research program. Specialists who will assist in this program have been working on lead-telluride and its alloys for eight years, and on bismuth telluride for three years.

**A NEW PROCESS** for the production of molybdenum powder has been announced by Metals and Residues, Inc. Normally, because of its volatility, molybdenum has been reduced in two stages; first reduction at 400 to 500 deg C to a brown oxide, and second reduction to metal at 1000 to 1050 deg C. The new process is a rapid single-stage reduction which is reported to speed up the production of molybdenum powder by five to eight times the rates obtainable by conventional practices.

**A SOLID BATTERY** with low-drain characteristics that employs ion-exchange resins rather than electrolyte has been patented. The cell has two electrodes in the form of a zinc plate and a silver plate separated by membranes of cation exchange resin. When an electrical load is connected between the cell's electrodes, a current is generated by a process that involves zinc leaving an electrode to displace zinc ions in a resin sheet.

**COMMERCIAL EXTRUSION OF COLUMBIUM** was announced by Wolverine Tube Division of Calumet and Hecla, Inc. The company can accept immediate orders for rod and tube ranging from ¼ in. to 1 in. in diameter and in lengths up to 20 ft. Major applications are missiles, rockets and atomic power plant components.

**THE INVENTION** of a new process for the production of molybdenum metal powder by a rapid, single-stage reduction of molybdenum oxide at high temperatures has been announced by Metals and Residues Inc. Because of its extreme volitility, molybdenum oxide is at present principally reduced in two stages – first to the brown oxide at 400° and then to the metal at 1,000°. The new system is expected to increase the rate of moly powder output by a factor of 5 to 8 times over the rates obtainable currently. Benefits are: greater reduction speed, economy of energy, higher purity powder and higher recovery.


Metals
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Bolivia
Belgium
Brazil
Canada
Cuba
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Germany
India
Italy
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ANTIMONY ORE
TUNGSTEN ORE
Philipp Brothers, Inc.
70 PINE STREET, NEW YORK CABLES · PHIBRO NEWYORK

# E&MJ QUOTATIONS

## Daily Prices of Metals

| Feb. | COPPER ELECTROLYTIC Domestic Refinery | Export Refinery | LEAD New York | LEAD St. Louis | ZINC (b) Delivered (a) | ZINC (b) East St. Louis | ALUMINUM Primary Pig 99.5% U.S. dest. | ALUMINUM Primary Pig 99.5% Export | TIN Straits New York |
|---|---|---|---|---|---|---|---|---|---|
| 12 | Holiday | 28.375 | | | Holiday | | | | |
| 13 | 29.600 | 28.625 | 11.500 | 11.300 | 12.000 | 11.500 | 24.700 | 22,500 | 102.000 |
| 16 | 29.700 | 28.800 | 11.500 | 11.300 | 12.000 | 11.500 | 24.700 | 22,500 | 102.500 |
| 17 | 29.700 | 28.750 | 11.500 | 11.300 | 12.000 | 11.500 | 24.700 | 22,500 | 102.625 |
| 18 | 29.650 | 28.800 | 11.500 | 11.300 | 12.000 | 11.500 | 24.700 | 22,500 | 102.750 |
| Averages | 29.663 | 28.670 | 11.500 | 11.300 | 12.000 | 11.500 | 24.700 | 22,500 | 102.469 |
| Europe, c.i.f. ..... | | 29.615 | | | | | | | |
| Calendar Wk. Avgs. | | | | | | | | | |
| Feb. 9-13 | 29.600 | 28.340 | 11.750 | 11.550 | 12.000 | 11.500 | 24.700 | 22,500 | 102.094 |

**(a) Prime Western Zinc sold on delivered basis at centers where freight from East St. Louis exceeds one-half cent a pound.**
**Correction:** Copper, export refinery Feb. 6 was 28.300c.

The above quotations are our appraisal of the major United States markets, based on sales reported by producers and their agencies. They represent payments received by producers for the product. They are reduced to the basis of cash, New York or St. Louis, as noted. Prices in cents per pound.

Copper, lead and zinc quotations are based on sales for prompt and future deliveries; aluminum weighted average prices are based on estimated sales and announced prices; tin quotations are for prompt delivery only.

**COPPER** prices, domestic, in the trade are quoted on a delivered basis, that is, delivered at consumer's plants. Delivery costs vary with the destination. The above prices are net prices at the refineries; the average shipment cost is deducted in order to arrive at a refinery price. Beginning Jan. 2, 1957, the average differential between delivered and f.o.b. prices is taken as 0.400c per lb.

**COPPER** quotations, foreign or export, reflect prices obtaining in the open market and are based on sales in the foreign market reduced to the f.o.b. refinery equivalent, Atlantic seaboard. On f.a.s. transactions, eff. Jan. 2, 1957, we deduct 0.125c for lighterage, etc., to arrive at the f.o.b. refinery quotation.

**COPPER** quotations are for ordinary forms of wirebars and ingot bars. The premiums on special shapes, effective in some instances on deliveries beginning Sept. 1, 1955, are: Standard ingots 0.25c per pound; slabs 0.55c and up, cakes 0.6c and up, depending on weight and dimensions; billets 1.725c and up, depending on dimensions and quality. Discount on cathodes 0.125c to 0.15c per pound.

**ZINC** quotations reflect sales of the Prime Western grade as well as sales of other grades when sold on a Prime Western basis. (b) **Zinc premiums . . .** obtaining over Prime Western zinc in the East St. Louis market on the following grades, in cents per pound: **Selected 0.10c; Brass Special 0.25c; Intermediate 0.5c. High Grade** zinc sold on contract, delivered to the consumers' plants, commands a premium of 1c per lb, eff. Apr. 9, 1958, over the East St. Louis basis for Prime Western: **Special High Grade** premium or differential is 1.25c per lb, eff. Apr. 9, 1958.

**LEAD** quotations are for the common grade, and are based on sales of domestically refined metal sold to domestic consumers. The differential on sales in the Chicago district is 15 points under New York; for California 20 points under New York; for New England add 7½ points to the New York basis. Corroding grade commands a premium over common lead of 10 points.

**ALUMINUM** quotations refer to primary pig, 99.5% in cents per pound. The U.S. price is freight allowed to buyers' plant; it includes sales by Canadian producers. It is a delivered price but the buyer may arrange shipment and receive the standard freight allowance. The export price is the price at which U.S. primary producers sell c.i.f. (delivered) foreign ports. The quotations are weighted averages with the weights determined by the relative capacity of the producers. Ingot sales reduced to the pig price are included in determining the price. The premium on standard ingots is 2.1c per lb.

**Note: The daily quotations for copper, lead and zinc are weighted averages of sales reported to *E&MJ*; weekly averages are arithmetical averages of the daily quotations; monthly averages are the arithmetical averages of the daily quotations.**

## Silver, Gold, and Sterling Exchange

| Feb. | Silver N.Y. | Silver London | Sterling Exchange | London Gold (a) |
|---|---|---|---|---|
| 12 | Holiday | 76.875d. | Holiday | 249s. 7¼d. |
| 13 | 90.375 | 77.125d. | 280.8750 | 249s. 7¼d. |
| 16 | 90.375 | 77.125d. | 280.7812 | 249s. 8d. |
| 17 | 90.375 | 77.125d. | 280.8125 | 249s. 8½d. |
| 18 | 90.375 | 77.125d. | 280.8750 | 249s. 8d. |
| Av. | 90.375 | — | 280.836 | — |
| Calendar Wk. Avgs. | | | | |
| Feb. 9-13 | 90.375 | — | 280.859 | — |

(a) Open Market

**The daily silver quotation reported by Handy & Harman, in cents and fractions of a cent per troy ounce, is the price paid by Handy & Harman in settlement for silver contained in unrefined silver-bearing materials submitted to them for refining. It is determined on the basis of offers of bar silver .999 fine as made to Handy & Harman for nearby delivery at New York by regular suppliers in quantities sufficient to meet daily requirements, and it is usually one quarter cent below the price at which such offers are made.**

**The Treasury's purchase price of newly mined domestic silver was established at 90.5c per troy ounce, 1000 fine, effective on July 1, 1946 under an amendment to the Silver Purchase Act of July 6, 1939.**

**London silver quotations are in pence per troy ounce, basis .999 fine.**

**London gold quotations are per troy ounce, basis 1000 fine.**

**Sterling, in cents, noon buying rate for cable transfers as certified by the Federal Reserve Bank of New York, for customs purposes.**

## Aluminum Alloys Secondary Feb. 12-18

| | Tons | Price/lb |
|---|---|---|
| No. 13 | 35 | 24.61c |
| No. 43 | 41 | 24.72c |
| No. 360 | 56 | 24.56c |
| No. 380 | | |
| 1% Zn | 1,938 | 21.76c |
| 2% Zn | 31 | 22.06c |
| 3% Zn | 592 | 20.75c |

The secondary aluminum alloy prices are weighted average prices calculated from reports by secondary aluminum producers of the prices and quantities of their sales.

## London Metal Exchange

| Feb. | COPPER Cash Bid | COPPER Cash Asked | COPPER 3 Mo. Bid | COPPER 3 Mo. Asked | LEAD Current Month Bid | LEAD Current Month Asked | LEAD 3 Mo. Bid | LEAD 3 Mo. Asked | ZINC Current Month Bid | ZINC Current Month Asked | ZINC 3 Mo. Bid | ZINC 3 Mo. Asked | TIN Cash Bid | TIN Cash Asked | TIN 3 Mo. Bid | TIN 3 Mo. Asked |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 234¼ | 234½ | 234½ | 234¾ | 69⅞ | 70 | 70½ | 70⅝ | 73 | 73⅛ | 71¼ | 71½ | 768 | 768½ | 768½ | 769 |
| 13 | 236¾ | 237 | 236¼ | 236¾ | 69½ | 69⅝ | 70⅜ | 70½ | 73 | 73¼ | 71⅜ | 71½ | 768½ | 769 | 769 | 769½ |
| 16 | 237¾ | 238 | 237¾ | 238 | 69¾ | 70 | 70⅝ | 70¾ | 73½ | 74 | 72 | 72¼ | 770½ | 771 | 771½ | 772 |
| 17 | 236¾ | 237 | 236¼ | 237 | 69¾ | 70 | 70⅜ | 71 | 74¼ | 74⅜ | 72⅜ | 72½ | 771 | 772 | 772 | 773 |
| 18 | 235¾ | 236 | 235¾ | 236 | 69½ | 69⅝ | 70½ | 70⅝ | 74¼ | 74⅜ | 72 | 72½ | 771½ | 772 | 772½ | 773 |

Prices are for the official a.m. session in pounds sterling per ton of 2240 lb. Copper basis electrolytic and fire refined wire bars, lead 99.97%, zinc 98% and tin min. 99.75%.

## THIS WEEK'S BUSINESS INDICATORS

| | Latest Week | Preceding Week | Month Ago | Year Ago | Net Change Year Ago |
|---|---|---|---|---|---|
| Steel Rate (% of capacity in operation) ..... | (d) 86.1 | (a) 83.7 | 76.0 | 50.8 | +35.3 |
| Steel Ingot Production, thousands of tons..... | (d) 2,439 | (a) 2,371 | 2,056 | 1,373 | +1,066 |
| Automobile Production (cars and trucks).. ..... | (d) 149,774 | (a) 148,328 | 166,693 | 128,751 | +21,023 |
| Electric Power Output (millions kwh.)..... | 13,292 | 13,151 | 13,554 | 12,289 | +1,003 |
| Engr'g Const. Awards, 4-week daily av., in thousands (c) | $60,293 | 59,866 | 47,600 | 52,494 | +$7,799 |
| Federal Reserve Index of Industrial Production (e)... | 143 Jan. | ..... | 142 | 133 | +10 |
| *E&MJ* Index of Nonferrous Metal Prices (b) ..... | 183.46 Jan. | ..... | 183.95 | 170.68 | +12.78 |
| All Commodities, Bureau of Labor Statistics (e) ..... | (d) 119.5 Jan. | ..... | 119.2 | 118.7 | +.8 |

(a) Revised. (b) 100 is composite of 1922-3-4. (c) From Eng. News-Record. (d) Preliminary. (e) Base period 1947-49

**SALES, STOCK AND SERVICE CENTERS . . . .** These suppliers, through years of experience, are qualified to give you information and meet your requirements for nickel and standard Inco Nickel Alloys out of warehouse stocks or through mill shipments. Through casting specialists, they are also prepared to offer technical service on the production of ferrous and non-ferrous castings containing nickel.

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**ALBUQUERQUE, N. M.**
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*Tel.* 2-5313

**ATLANTA 2, GA.**
J. M. Tull Metal & Supply Co.
*Tel. Jackson* 3-3871

**BALTIMORE 5, MD.**
Whitehead Metal Products Company, Inc.
*Tel. Eastern* 7-1200

**BATON ROUGE, LA.**
Metal Goods Corporation
*Tel. Dickens* 5-5761

**BEAUMONT, TEXAS**
Metal Goods Corporation
*Tel. Terminal* 3-7536

**BIRMINGHAM, ALABAMA**
J. M. Tull Metal & Supply Co.
*Tel. Fairfax* 3-1612

**BUFFALO 7, N. Y.**
Whitehead Metal Products Company, Inc.
*Tel. Bedford* 3100

**CAMBRIDGE 39, MASS.**
Whitehead Metal Products Company, Inc.
*Tel. Trowbridge* 6-4680

**CHICAGO 23, ILL.**
Steel Sales Corporation
*Tel. Bishop* 7-7700

**CINCINNATI 39, OHIO**
Williams and Company, Inc.
*Tel. Capitol* 1-3000

**CLEVELAND 14, OHIO**
Williams and Company, Inc.
*Tel. Utah* 1-5000

**COLUMBUS 8, OHIO**
Williams and Company, Inc.
*Tel. Axminster* 4-1623

**CORPUS CHRISTI, TEXAS**
Metal Goods Corporation
*Tel. Tulip* 4-0366

**DALLAS 35, TEXAS**
Metal Goods Corporation
*Tel. Fleetwood* 1-3211

**DENVER 16, COLO.**
Metal Goods Corporation
*Tel. Dudley* 8-4141

**DETROIT 10, MICH.**
Steel Sales Corporation
*Tel. Tyler* 6-3000

**FORT WORTH, TEXAS**
Metal Goods Corporation
*Tel. Edison* 2-7471

**GRAND RAPIDS 2, MICH.**
Steel Sales Corporation
*Tel. Glendale* 9-3981

**HARRISON, N. J.**
Whitehead Metal Products Company, Inc.
*Tel. Humboldt* 5-5900

**HOUSTON 1, TEXAS**
Metal Goods Corporation
*Tel. Fairfax* 3-0141

**INDIANAPOLIS 18, IND.**
Steel Sales Corporation
*Tel. Liberty* 6-1535

**JACKSONVILLE 5, FLA.**
J. M. Tull Metal & Supply Co.
*Tel. EV.* 7-5561

**KANSAS CITY 8, MO.**
Steel Sales Corporation
*Tel. Victor* 2-1366-7

**LOS ANGELES 23, CALIF.**
Pacific Metals Company, Ltd.
*Tel. Raymond* 3-5431

**LOUISVILLE 3, KY.**
Williams and Company, Inc.
*Tel. Juniper* 3-7781

**MIAMI, FLA.**
J. M. Tull Metal & Supply Co.
*Tel. Newton* 5-0365

**MILWAUKEE 9, WIS.**
Steel Sales Corporation
*Tel. Hilltop* 2-1020

**MINNEAPOLIS 13, MINN.**
Steel Sales Corporation
*Tel. Sterling* 1-4803

**NEW ORLEANS 12, LA.**
Metal Goods Corporation
*Tel. Jackson* 2-2373

**NEW YORK 14, N. Y.**
Whitehead Metal Products Company, Inc.
*Tel. Watkins* 4-1500

**PHILADELPHIA 40, PA.**
Whitehead Metal Products Company, Inc.
*Tel. Baldwin* 9-2323

**PHOENIX, ARIZ.**
Pacific Metals Company, Ltd.
*Tel. Alpine* 8-7821

**PITTSBURGH 22, PA.**
Williams and Company, Inc.
*Tel. Cedar* 1-8600

**PORTLAND 12, ORE.**
Eagle Metals Company
*Tel. Atlantic* 8-5201

**ROCHESTER 10, N. Y.**
Whitehead Metal Products Company, Inc.
*Tel. Butler* 8-2141

**ST. LOUIS 10, MO.**
Steel Sales Corporation
*Tel. Prospect* 1-5255

**SALT LAKE CITY 1, UTAH**
Pacific Metals Company, Ltd.
*Tel. Davis* 2-5461

**SAN ANTONIO 5, TEXAS**
Metal Goods Corporation
*Tel. Capitol* 7-5161

**SAN DIEGO 1, CALIF.**
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*Tel. Belmont* 4-3255

**SAN FRANCISCO 7, CALIF.**
Pacific Metals Company, Ltd.
*Tel. Underhill* 3-5600

**SEATTLE 4, WASH.**
Eagle Metals Company
*Tel. Parkway* 1-9974

**SPOKANE 24, WASH.**
Eagle Metals Company
*Tel. Keystone* 4-0386

**SYRACUSE 4, N. Y.**
Whitehead Metal Products Company, Inc.
*Tel. Granite* 4-4641

**TAMPA 10, FLA.**
J. M. Tull Metal & Supply Co.
*Tel.* 3-6741

**TOLEDO 12, OHIO**
Williams and Company, Inc.
*Tel. Greenwood* 5-8661

**TULSA 3, OKLA.**
Metal Goods Corporation
*Tel. Gibson* 7-4101

**WINDSOR, CONN.**
Whitehead Metal Products Company, Inc.
*Tel. Murdock* 8-6921

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*Tel. Amherst* 9-1427

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Maritimes Representative,
*Tel. Halifax* 9-1503

**EDMONTON, ALTA.**
Wilkinson Company, Ltd
*Tel.* 3-5834

**MONTREAL 28, QUE.**
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*Tel. Hunter* 8-2311

**TORONTO 2, ONT.**
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*Tel. Empire* 2-4411

**VANCOUVER, B. C.**
Wilkinson Company, Ltd.
*Tel. Emerald* 2121

**WINNIPEG, MAN.**
Alloy Metal Sales Limited
*Tel. Lenox* 3-1141

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**ARGENTINA, Buenos Aires**
Industrias Químicas Argentinas "Duperial"
Edificio "Duperial" Paseo Colon 285

**BRAZIL, Rio de Janeiro**
Companhia Imperial de Industrias Químicas do Brasil
Caixa Postal 953

**BRAZIL, Sao Paulo**
Companhia Imperial de Industrias Químicas do Brasil
Caixa Postal 6980

**CHILE, Santiago**
South American Metal Company
Casilla 1215-D

**MEXICO, Mexico, D.F.**
La Paloma Compañia de Metales, S. A.
Mennen No. 33, Apartado No. 7304

**PERU, Lima**
Imperial Chemical Industries, S. A.
Casilla 1685

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**FRED H. LENWAY AND COMPANY, INC.**

**112 MARKET STREET**
**SAN FRANCISCO 11, CALIF.**
**TELEPHONE: DOUGLAS 2-8560**

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**ALUMINOTHERMIC CHROME**
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**TUNGSTEN METAL**
–
**TUNGSTEN CONCENTRATES**
–
**FERRO TUNGSTEN**
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**MOLYBDENUM CONCENTRATES**
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**UNITED STATES SMELTING REFINING & MINING CO.**

*Sales Office:* **62 WILLIAM STREET**
**NEW YORK 5, N. Y.**


## Manganese Ore Imports Fell 25% in October

Domestic mine shipments of manganese ore in October 1958 increased 6% over September to 29,000 short tons, according to the U.S. Bureau of Mines.

Imports of manganese ore containing 35% or more manganese totaled 157,609 short tons, a decrease of 25% from September, as compiled by the Bureau of the Census. Of the total imports, Brazil supplied 30%, Ghana 19%, Union of South Africa 16%, India 10%, Mexico 9%, Cuba 5%, and Morocco, Belgian Congo, Greece, Angola, Mozambique, and Chile the remaining 11% in decreasing order. Imports of ferromanganese increased 32% over September to 24,922 short tons of ore equivalent. Total quantity of new material (domestic mine shipments plus imports of ore and alloy in terms of ore) decreased 18% from September to 211,531 short tons.

Supply of manganese in the United States, 1954-58, in short tons:

| | Dom. mines shipments | General Imports Ore | Ferro |
|---|---|---|---|
| 1954 | 206,128 | 2,165,694 | 116,088 |
| 1955 | 287,255 | 2,078,205 | 242,658 |
| 1956 | 344,735 | 2,238,568 | 488,436 |
| 1957 | 366,334 | 3,105,172 | 411,446 |
| 1958: | | | |
| 1st Qtr. | 76,900 | 805,111 | 28,338 |
| 2nd Qtr. | 80,600 | 595,749 | 20,544 |
| 3rd Qtr. | 80,000 | 555,910 | 51,868 |
| Oct. | 29,000 | 157,609 | 24,922 |

# Kennecott Copper Corporation
# Kennecott Sales Corporation

*Producers and Sellers of*

**Electrolytic Copper**
**Chino Fire Refined Copper (K.C.M.)**
**Braden Fire Refined Copper** (★★★)
**Molybdenite**

*Offices*

**161 East 42nd St., New York 17, N. Y.**


## Ferroalloys

(Unchanged from Feb. 12 *M&MM*)

•

## Dealers' Scrap Prices

Dealers' buying prices, f.o.b. New York or equivalent freight points, for wholesale quantities, in cents per lb.

| | |
|---|---|
| No. 1 copper wire | 24@24½ |
| Heavy copper & wire, mixed | 22@22½ |
| Light copper | 20@20½ |
| No. 1 composition | 17½@18 |
| Composition turnings | 16½@17 |
| Light brass | 11½@12 |
| Yellow brass turnings, mix | 11½@12 |
| Heavy yellow brass, mixed | 12½@13 |
| Auto radiators, unsweated | 14@14½ |
| Brass pipe, cut | 14½@15 |
| Rod brass turnings, No. 1 | 12½@13 |

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## Tri-State Concentrates

Joplin, Feb. 17, 1959

| (a) *Blende* | *Per Ton* |
|---|---|
| Prime coarse (60% zinc) | $68 |
| Flotation, 60% zinc | $68 |

(a) Effective Nov. 7, 1958

*Galena*

Coarse and flotation, 80% lead ... (a) $134.52

(a) Effective Feb. 11, 1959

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## Brass and Bronze Ingot

85-5-5-5 (No. 115) 29c; 80-10-10 (No. 305) 33¼c: 88-10-2 (No. 215) 38c; Yellow (No. 405) 24c; and upward. Manganese bronze (No. 420) 25¼c.


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## Mineral and Ore Markets

**Indian manganese ore barter** is reported close again. We hesitate to mention it, since agreement seemed definite a number of times in the past few months. Our information is that a "letter of intent" is ready for signature and will be signed by CCC this week and that a contract has been drawn up and agreed to by other U.S. agencies. The Indian Embassy in Washington, importers claim, will sign the agreement this week. The legal and other problems were worked out to the satisfaction of CCC several weeks ago, but apparently the Indian Embassy was uncertain about some of the details.

There is still little indication of commercial interest in manganese ore.

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**Chrome ore** inquiries are coming in better than manganese ore, some firms indicate. But there is very little business. Some firms suggest there is from 65,000 to 75,000 tons of chrome ore at Turkish ports. It is uncertain what grades are included — some importers suggest most of it is low grade ore.

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**Tungsten ore** prices have fallen again in Europe. There is some weakness in the U.S. A number of factors suggest it may weaken further.

**Platinum** is $57-60 per troy oz. Major suppliers upped the price by $5, effective Feb. 17, 1959, to $57 wholesale and $60 retail. Dealer activity is within this range. The market is tight owing to withheld metal rather than any pick up in industrial requirements. The International Nickel Co. strike, South African cutbacks due to low prices, and reduced offerings from Russia at higher prices are the major firming factors. There has been a rash of scare buying here. The European market is strong with prices running slightly higher than in the U.S. Platinum has fallen steadily since late 1955 when it was as high as $117.

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**Mercury** is unchanged at $218-23 per flask, large lots, N.Y., prompt delivery. The situation is unchanged from last week. Spot metal is scarce — buying interest poor.

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## London Copper Prices

The following prices in £ sterling per long ton c.i.f. European ports are calculated by the London Metal Bulletin (see *M&MM* Feb. 13, 1958, p. 3).

| | | | |
|---|---|---|---|
| Feb. 9 | 234.277 | Feb. 12 | 233.736 |
| Feb. 10 | 232.200 | Feb. 13 | 236.003 |
| Feb. 11 | 232.421 | | |
| Av. | | | 233.727 |

## Smelters' Copper Scrap Prices

Custom smelters' buying prices for scrap, carload lots, refinery:

No. 1 copper and wire, 26½c; No. 2 heavy copper, 25c; light copper, 22¾c; refinery brass, 24c.

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## A Custom Smelter Copper Price Feb. 12-18

The following prices are computed by *E&MJ Metal and Mineral Markets* from data on flat price and average price sales reported by the American Smelting & Refining Co. They refer to electrolytic copper in standard shapes.

Delivered consumers' plants ....30.000c
F.O.B. refinery .....29.600c

They are for sales in the U. S. market and are adjusted to the nearest one-eighth cent. A one-quarter cent deduction for selling commission has been made.

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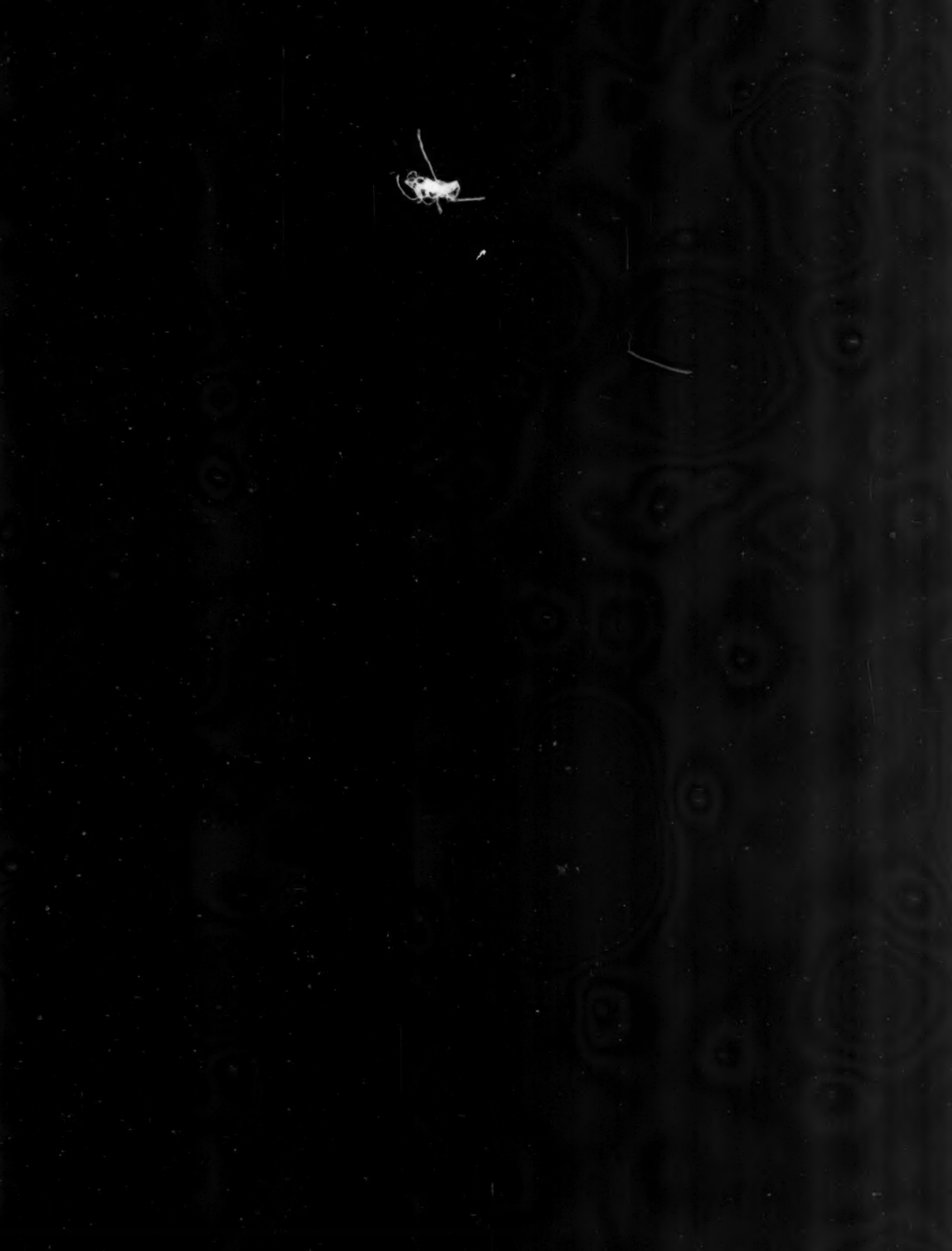
## Lead Average (Monterrey)

The net price realized by the American Smelting & Refining Co. on all of its sales of Mexican pig lead, including metal sold for consumption in Mexico, during the week ended Feb. 14, 1959, was 8.46c (U.S.) per lb. f.o.b. refinery Monterrey, Mex.